



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, DC 20314-1000

CECW-CO

OCT 2 2009

MEMORANDUM FOR SOUTH PACIFIC DIVISION COMMANDER

SUBJECT: The "normal circumstances" concept as applied to Cargill's plant site at Redwood City, CA consisting of salt production facilities

1. References:

- a. 33 CFR 328.3(b), U.S. Army Corps of Engineers definition of "wetlands."
- b. U.S. Army Corps of Engineers 1987 Wetland Delineation Manual, Part IV., Section F. "Atypical Situations."
- c. U.S. Army Corps of Engineers. 2008. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region. U.S. Army Engineer Research and Development Center. ERDC/EL TR-08-13.
- d. U.S. Army Corps of Engineers. 2008. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region. U.S. Army Engineer Research and Development Center. ERDC/EL TR-08-30.
- e. Memorandum to All Division and District Counsels, Attempts to Evade 404 Jurisdiction By Pumping Water from Wetlands, 10 April 1990.
- f. Regulatory Guidance Letter 82-2, Clarification of "Normal Circumstances" in the Wetland Definition, 11 February 1982.
- g. Regulatory Guidance Letter 86-9, Clarification of "Normal Circumstances" in the Wetland Definition (33 CFR 323.2(c)), 27 August 1986.
- h. Regulatory Guidance Letter 90-7, Clarification of the Phrase "Normal Circumstances" as it pertains to Cropped Wetlands, 26 September 1990.
- i. Memorandum Thru CDR, South Atlantic Division For CDR HQUSACE, Jacksonville District approach to "normal circumstances" and use of Section F of the 1987 Wetland Delineation Manual for jurisdictional determinations in the Everglades Agricultural Area, 10 March 2009.

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j. Memorandum for South Atlantic Division Commander, Jacksonville District's March 10, 2009 request that CECW-CO-R review and comment on the district's approach to "normal circumstances" and application of Section F of the 1987 Wetland Delineation Manual for jurisdictional determinations in the Everglades Agricultural Area, 30 April 2009.

2. The question addressed in this memo is: How does the "normal circumstances" aspect of the Corps definition of the term "wetlands" apply to the Cargill Corporation's plant site at Redwood City, CA, which consists of salt production facilities? The question was raised by the San Francisco District Office of Counsel, at the suggestion of the District Regulatory Program staff, at a pre-application meeting between representatives of Cargill and their partners and Corps staff from the District, Division, and Headquarters levels on 9 June 2009. This question is relevant to how the Corps will process a permit application for development of the Cargill site pursuant to a "preliminary jurisdictional determination" for that site.

3. The U.S. Army Corps of Engineers (Corps) regulations define "wetlands" for purposes of Section 404 of the Clean Water Act as follows:

The term 'wetlands' means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. 33 CFR 328.3(b).

The regulatory definition of "wetlands" defines that term by referring to a site's conditions under "normal circumstances." The term "normal circumstances" is not formally defined in the Corps or U.S. Environmental Protection Agency (EPA) regulations for implementing the Clean Water Act Section 404 program. However, the meaning of this concept of "normal circumstances" was explained in the preamble to the 1977 rulemaking establishing the definition of "wetlands," in three subsequent regulatory guidance letters (RGLs), and other memoranda.

4. The preamble to the rule establishing the current definition of "wetlands" stated that:

Our intent under Section 404 is to regulate discharges of dredged or fill material into the aquatic system as it exists and not as it may have existed over a record period of time. 42 Fed. Reg. 37122, 37128 (July 19, 1977).

Although the preamble indicates an intent to regulate discharges into the aquatic system as it exists, there was always the recognition that the regulations needed to protect against a landowner who might try to strategically manipulate the hydrology or vegetation of a site in

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order to eliminate jurisdiction. To this end, an exception was made to the rule that you determine jurisdiction over a site based on the site conditions as they exist at the time of the jurisdictional determination. This exception was embodied in the term "normal circumstances," which the preamble explains:

...was included in the definition to respond to those situations in which an individual would attempt to eliminate the permit review requirements of Section 404 by destroying the aquatic vegetation *Id.*

This was a concern in crafting the original definition of "wetlands" and was deliberately carried over in the existing definition. *Id.*

5. There was a concurrent awareness that while it was important to address situations whereby landowners might attempt to manipulate their land out of Section 404 jurisdiction by altering one or more of the three wetland indicators (i.e., hydrophytic plant community, wetland hydrology, hydric soils), it was equally important to insure that property that had formerly been wetlands but that had legitimately been transformed into dry land was not categorized as a jurisdictional wetland.

"We do not intend, by this clarification, to assert jurisdiction over those areas that once were wetlands and part of an aquatic system, but which, in the past, have been transformed into dry land for various purposes." *Id.*

Thus, the term "normal circumstances" was not intended to pull into CWA jurisdiction any area that had formerly been "wetlands" under the area's "natural conditions." There was a recognition that wetlands could be altered in a legitimate manner in a way that would eliminate the area's wetland properties and that this would remove the area from Section 404 jurisdiction as "wetlands."

6. After the promulgation of the 1977 rule with the current definition of "wetlands" that included the "normal circumstances" language, three RGLs were issued to further clarify the meaning of "normal circumstances." RGL 82-2 and RGL 86-9, both titled "Clarification of 'Normal Circumstances' in the Wetland Definition," reiterated the policies stated in the preamble to the 1977 rulemaking, and provided additional clarification for applying "normal circumstances." Regulatory Guidance Letter 82-2 states that:

Many areas of wetlands converted in the past to other uses would, if left unattended for a sufficient period of time, revert to wetlands solely through the devices of nature. However, such "natural circumstances" are not what is meant

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by "normal circumstances".... "Normal circumstances" is determined on the actual, present use of an area. Regulatory Guidance Letter 82-2, Clarification of "Normal Circumstances" in the Wetland Definition, 11 February 1982 (hereinafter "RGL 82-2").

This RGL does not state what types of wetland conversions relate to the "actual, present use of an area." It focuses on the 1977 preamble language that discusses how the concept of "normal circumstances" applies to the removal of aquatic vegetation or the abnormal presence of aquatic vegetation in a non-aquatic area.

Regulatory Guidance Letter 86-9 reiterated the concept that "natural circumstances" are not what is meant by "normal circumstances." This RGL expanded on a statement made in RGL 82-2 by saying that "[n]ormal circumstances are determined on the basis of an area's characteristics and use, at present and in the recent past." Regulatory Guidance Letter 86-9 also reinforced the Corps position that it does not intend to regulate areas that were once wetlands but "have been transformed into dry land for various purposes." Regulatory Guidance Letter 86-9, Clarification of "Normal Circumstances" in the Wetland Definition (33 CFR 323.2(c)), 27 August 1986 (hereinafter "RGL 86-9").

These two RGLs reiterate that: (1) an individual should not be allowed to "eliminate the permit review requirements of Section 404 by destroying the aquatic vegetation" and (2) that areas that had previously been legitimately converted from wetlands to some other use should not be categorized as wetlands (under the section 404 definition) on the basis of the area's former wetland status if the area no longer exhibited the attributes of a wetland.

7. The concept of "normal circumstances" is also applied in the Corps' 1987 Wetland Delineation Manual ("1987 Manual") and the Regional Supplements to the Corps Delineation Manual. Section F of Part IV of the 1987 Manual and Chapter 5 of the Regional Supplements address how to identify and delineate wetlands for purposes of Section 404 of the Clean Water Act when atypical situations exist on a site. Atypical situations are defined as wetlands in which vegetation, soils, or hydrology indicators are absent due to recent human activities or natural events. Among the situations to which these sections apply is when unauthorized activities resulting in a regulated discharge (i.e., a discharge that is subject to the "activities jurisdiction" of the CWA) alter the site conditions in a way that eliminates one or more of the three wetland parameters. The discussion of this type of situation explicitly excludes authorized, exempted activities, or "unregulated" activities (i.e., activities not subject to the "activities jurisdiction" of the CWA), that altered the site's wetland parameters, indicating that the conditions resulting from the authorized, "unregulated," or exempted activities are the normal circumstances for the site and the wetland delineation should look at the site's existing rather than former characteristics. *Id.*

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8. Several official Corps memos have been written to resolve difficult questions of what "normal circumstances" are in specific cases. The first memo involved a situation where a landowner was reportedly using pumps to drain wetlands in order to eliminate one or more of the wetland parameters and thus evade Section 404 jurisdiction, *Attempts to Evade 404 Jurisdiction By Pumping Water from Wetlands*, 10 April 1990. At that time, it was determined that the conditions brought about by efforts to evade CWA jurisdiction by pumping do not represent the "normal circumstances" of the site even where the pumping or other activities could be accomplished without a regulated Section 404 discharge. *Id.*

9. The next guidance written regarding the application of "normal circumstances" to a specific scenario involved the application of that concept to cropped wetlands. Regulatory Guidance Letter 90-7, Clarification of the Phrase "Normal Circumstances" as it pertains to Cropped Wetlands, 26 September 1990 (hereinafter "RGL 90-7"). Aside from this RGL's focus on clarifying the term "normal circumstances" for cropped wetlands, it makes a general statement that:

The primary consideration in determining whether a disturbed area qualifies as a section 404 wetland under "normal circumstances" involves an evaluation of the extent and relative permanence of the physical alteration of wetlands hydrology and hydrophytic vegetation. In addition, consideration is given to the purpose and cause of the physical alteration to hydrology and vegetation. *Id.* at 2.

As in the two previous RGLs, Corps personnel are to consider whether any physical alterations to vegetation or hydrology have been done in an attempt to avoid section 404 regulation.

Per the RGL, cropped wetland that has been subject to extensive and relatively permanent hydrologic modifications such that the area would no longer support a prevalence of hydrophytic vegetation, even if cropping were to cease, is not a wetland under normal circumstances. In this case, the altered/drained cropland condition constitutes "normal circumstances." *Id.* at 3. In contrast, for cropped wetland that was manipulated and cropped but still exhibited important wetland values, the cropped state was not considered to be the "normal circumstances" because hydrophytic vegetation would return if the cropping ceased. *Id.* For cropped wetlands, the distinction between what qualified as "normal circumstances" was drawn between those areas where the permanence of the alterations was sufficient to eliminate the area's capacity to support hydrophytic vegetation in the near term if cropping were ceased and those areas where the changes were not sufficiently permanent to prevent hydrophytic vegetation from returning shortly after cropping ceased.

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10. The most recent memorandum written on the application of "normal circumstances" to a specific case justified the application of the "normal circumstances" analysis to the area known as the Everglades Agricultural Area (EAA). Memorandum Thru CDR, South Atlantic Division For CDR HQUSACE, Jacksonville District approach to "normal circumstances" and use of Section F of the 1987 Wetland Delineation Manual for jurisdictional determinations in the Everglades Agricultural Area, 10 March 2009 (hereinafter "District EAA Memo"). The EAA was created in part of the Everglades just to the south of Lake Okeechobee in Florida. In order to facilitate agriculture on the land, a system of ditches, canals, and pumps has been used to drain the land to varying degrees to support production of a variety of crops. District EAA Memo, at 3. Pumps are required to be used on individual farms to manipulate the level of the water table on that farm's fields, sometimes being pumped dry and other times being allowed to flood for rice farming, or while the fields are fallow, or to manage soil conditions. *Id.* at 4. Although the EAA and many of the canals and ditches in the area were established decades ago and before the enactment of the CWA, it is the variable pumping down of the water table that removes wetland hydrology from the site. The alteration of hydrology, plus vegetation management on the site to grow crops, affects application of the section 404 wetland definition. The pumping down of the water table constitutes a current, on-going manipulation of the local hydrology that is necessary to allow agricultural production of sugar cane and winter vegetables, as well as sod, to continue and which prevents wetland hydrology from being readily observed on site. Because it is on-going human activities that are preventing wetland indicators from being observed, and those activities are being undertaken specifically to alter the hydrology of the site to produce specific crops, it was deemed appropriate to apply the "normal circumstances" analysis in Section F of the 1987 Manual and to evaluate the area as it would exist if there was no active pumping. In contrast, the construction of the canals and ditches has resulted in a relatively permanent alteration of the natural hydrology of the EAA, and therefore are a component for establishing the normal circumstances for the area. Since use of water pumps is necessary to actively manage local hydrology for crop production and rotational cycles, use of those pumps does not constitute a relatively permanent change to local hydrology, and therefore is not part of the normal circumstances for the EAA. In summary, the agencies determined that normal circumstances for the site includes the canals and ditch network constructed as part of the EAA, but with no active pumping.

11. Based on the past guidance referenced above, we can summarize the general approach that the Corps has taken to apply the concept of "normal circumstances" to the section 404 definition of "wetland." First, a regulator should determine what the "normal circumstances" are at the site, by considering whether the landowner has recently altered his or her property with the intent of evading Section 404 jurisdiction. Also, a regulator should apply the "normal circumstances" analysis when continued and on-going active management of the local hydrology and/or vegetation is being done to suppress one or more wetland indicators at a site. On-going, active

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management of a site is a "recent human activity," 1987 Manual, p. 83, even when it has been continuously conducted for a length of time, and it is often evidence of the fact that "physical alteration of the wetlands hydrology and hydrophytic vegetation" is not relatively permanent, RGL 90-7. Therefore, when there is active management of a site, such as using pumps to locally draw down the water table, the "Atypical Situations" section of the 1987 Manual should be used to evaluate the normal circumstances that would exist on the site if the active management ceased.

12. It is important to distinguish on-going, active management that continually alters a site's hydrology and/or vegetation from "one-time" activities that result in a relatively permanent change in the hydrology and/or vegetation. RGL 90-7, paragraph 4. These "one-time" activities tend to be more structural in nature, e.g., placement of fill material over hydric soils, placement of drainage tile, construction of levees or drainage ditches. If an activity that was either authorized under the CWA, or exempted or excluded from CWA regulation, or that occurred before the passage of the CWA, effected a one-time structural change, the normal circumstances for the site would be the site as it exists with the structural change in place. 1987 Manual, p. 83. As the 1987 Manual notes, jurisdictional wetlands may continue to exist on a site even after the site has been altered by permitted activities, but, when determining whether jurisdictional wetlands persist on sites with authorized or exempt alterations, the wetland determination must look at the site with these structural alterations in place.

13. The Cargill plant site at Redwood City, CA, consists of approximately 1400 acres of salt production facilities that comprise the final stages of the salt production process. The facility was created in an area on the south edge of San Francisco Bay that was likely formerly a complex of tidal sloughs and wetlands. The facility site was hydrologically severed from the bay by a levee constructed in the 1940s pursuant to a War Department permit issued pursuant to Section 10 of the Rivers and Harbors Act of 1899. All site construction and topographical manipulation occurred prior to the enactment of the CWA. Currently, the site consists almost entirely of roughly 17 "cells," or interior areas that are separately diked off to control the level and distribution of liquids within the site. One type of liquid at the Redwood City Cargill plant is "brine" or "pickle," which is a highly saline solution created by letting large quantities of salt water taken from the bay concentrate through evaporation by the sun and wind over a period of several years. This brine/pickle is pumped on to the Redwood City site from other evaporation cells in the south bay area after having already having been concentrated for several years through evaporation. The brine/pickle is moved to different cells on the site during the course of production through a combination of gravity and pumps. When it reaches the correct concentration, the brine/pickle is moved into the "crystallizer beds" at the Redwood City site where the sodium chloride is allowed to precipitate out, leaving a residual solution called

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"bittern" that is eventually moved into a separate cell. After the bittern has been removed from the crystallizer beds, the dry salt is harvested through a mechanical process that scrapes the majority of the salt off the bed of the cell. The bittern is either recycled back into process or pumped into trucks and sold for other commercial/industrial uses. In this production process, any pumping that occurs is used to move the brine/pickle or bittern from one cell to another on site or to move the bittern off site when it is sold at the end of the process.

14. The circumstances on the Redwood City plant site are substantially different from those in the Everglades Agricultural Area. In the EAA, pumping is used to continually alter the hydrology of the site by drawing down the water table to varying degrees for the purposes of crop production. The Redwood City plant site is an industrial facility that produces salt products by the manipulation of liquids through a series of evaporation cells. On the Redwood City plant site, pumping is not used to draw down the water table or to eliminate a wetland indicator. Instead, pumping is used to move fluids through a series of evaporation cells to facilitate salt production. The actions that altered the natural hydrology of the Redwood City plant site occurred when the site was first developed decades ago through the construction of the permitted exterior levee, which severed the hydrological connection and tidal exchange between the site and the bay. Because the actions that altered the hydrology on the Redwood City plant site were "one-time" activities that were permitted and occurred before the enactment of the CWA, and because the on-site pumping is not being done to continually alter the natural site hydrology, the normal circumstances on the Redwood City plant site are to be viewed as the site exists today, with normal salt production operations. Thus, the "normal circumstances" for the Redwood City Cargill plant site are the circumstances of an industrial site for making salt, not the circumstances of the site that existed decades ago before the levees were built and before the area was converted into an industrial salt-making facility. Consistent with the direction in the 1987 Manual and the applicable Regional Supplement, to determine if wetlands exist anywhere on the Redwood City plant site, the plant site should be evaluated in its current state as a salt production facility with pumps periodically moving water between the different cells, and not based on any historical conditions at that site.

FOR THE COMMANDER:



STEVEN L. STOCKTON, P.E.
Director of Civil Works